

REMARKS/ARGUMENTS

In the Office Action mailed January 20, 2006, the Examiner rejected claims 1, 8 to 10 and 17 under 35 U.S.C. § 103(a) as unpatentable over US 5,515,648 Sparkes in view of US 5,097,627 Roberts. Applicant traverses the rejection and for the reasons that follow, respectfully requests reconsideration and allowance of all claims.

I. Rejection of Claims 1, 8-10 and 17

Applicant's plant-growing apparatus, as can be seen in the drawings, and as defined most broadly in claim 1, is altogether different in structure from the apparatus taught by Sparkes. A careful review of Sparkes will show that the reference does not in fact show features specified in claim 1.

According to the Examiner, Sparkes teaches "a rotary hydroponic plant growing machine comprising a cylindrical shell 1, 16 for holding plant containers, such that shoots of said plants grow in said containers in a direction radially inwardly of said shell." The Examiner also considers that Sparkes teaches "a light 17 inside the cylindrical structure." This is a misunderstanding of Sparkes. In the Sparkes apparatus, there is a pair of end frames 11 which comprise a circular rim 12 and a number of radial spokes 13 (column 3, lines 6-8). A number of cylinders 16 (five cylinders in the embodiment of Fig. 1) extend between corresponding pairs of spokes 13 in the end frames 11 (column 3, lines 21-28). A linear light source 17 extends between the hubs of the end frames 11 to emit light in all radial directions (column 3, lines 42-44). Each of the cylinders 16 can rotate relative to the end frame 11, driven by motor M (column 3, lines 34-40 and Figure 3). The cylinders 16 have sockets 20 in their surfaces which hold plant holders 21 containing plants (column 3, lines 60-67 and Figure 2). The rotation of the end frames 11 and the rotation of the cylinders 16 provides uniform illumination as well as substantially eliminating geotropic effects, and "*thus causing the plants to grow substantially straight stems extending radially from the cylinders 16*" (column 4, lines 57-64).

It is therefore apparent that Sparkes teaches a machine having several discrete, rotatable cylinders 16, each of which contains plants having shoots which grow radially *outwardly* from the cylinder 16. The light source 17 is *external* to each cylinder 16. The plant shoots, in

some rotational positions of the end frames 11 and of the cylinders 16, will grow towards the light source 17, but in no case do they grow inwardly of a cylinder 16.

Applicant's claim 1 specifies that the plant-growing machine comprises a cylindrical shell for holding plant-growing containers and that the cylindrical shell comprises a circumferential surface (this circumferential surface 106 is best seen in Figure 3). The only element in Sparkes that may be considered a cylindrical shell for holding plant growing containers that comprises a circumferential surface is the body of a cylinder 16. However, the light 17 is *outside* such cylindrical structure and the plant shoots grow radially *outwardly* of each such cylinder. In Applicant's claim 1, it is specifically required that the light is *inside* the cylindrical shell and the plant shoots grow radially *inwardly* of the cylindrical shell.

The Examiner appears to have interpreted Sparkes as showing a light 17 inside a cylindrical structure. In fact, the light 17 is simply at the axis of rotation of the end frames 11, and is therefore radially inward of the group of cylindrical structures 16 with respect to the end frames 11; but it is *not* inside any cylindrical structure, much less inside any cylindrical shell which comprises a circumferential surface, as required in Applicant's claim 1. There is simply no such structure in Sparkes.

Accordingly, Applicant submits that claim 1, as well as claims 8-10 and 17 which depend therefrom, are patentable over the cited references.

II. Claims 2-7 and 11-16

Claims 2-11 and 11-16 were withdrawn pursuant to the species election in the Amendment dated June 29, 2004 pending allowance of a generic claim. Applicant submits that claim 1 is generic to all of species I to IV identified by the Examiner and is allowable for the reasons discussed above.

Accordingly, Applicant submits that claims 2-7 and 11-16, which depend directly or indirectly from claim 1, are entitled to consideration as provided by 37 C.F.R. 1.141 and requests rejoinder of these claims.

III. Conclusion

Applicant respectfully requests reconsideration and allowance of all claims in light of the foregoing submissions.

Respectfully submitted,

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